

considered "associated" conditions far more often than they are considered an underlying cause. Since our primary interest is in the determinants of disease rather than the determinants of underlying causes of death per se, analysis based solely on underlying frequencies would not be appropriate. We also did not study causes for which the 3-year rates appear to fluctuate randomly over time.

Causes listed below were deemed amenable to study on the basis that (i) the underlying frequencies are thought to closely represent the incidence at death and (ii) correlations between the 1968-70 and 1973-75 HSA death rates are statistically significant suggesting the presence of some causative agent that may invite intervention. In the case of acute myocardial infarction, the latter condition was met only when HSA IV was eliminated; hence, results for that cause are based on data for five rather than six HSA's. This concession was allowed because of special interest in intercorrelations among elevation, nutrition factors and myocardial infarction.

<u>Cause</u>	<u>ICDA Codes (8)</u>
Acute Myocardial Infarction	410
Colon and Rectum Cancer	153,154
Pancreatic Cancer	157
Trachea, Bronchus and Lung Cancer	162
Cancer of the Cervix Uteri	180
Prostatic Cancer	185

Income and Elevation Data

Clearly, food utilization practices reflect many facets of living including economic power and culturally conditioned lifestyles; hence our need to be aware of these associations when assessing apparent associations between nutrition factors and mortality.

Per capita income (9) is used in these analyses because NCNS results indicate that food utilization is more a linear function of income than of homemaker's education (2,3). We chose per capita income as a general descriptor that is highly correlated with other income variables.

The elevation variable presently used is the population-weighted average of the elevations of all county seats located in each HSA.

Correlation Analysis

Two statistical tests—Pearson's product-moment correlation procedure and Spearman's nonparametric procedure—were used in these analyses (10). While results are probably stronger when both tests indicate a statistically significant correlation, the reader should be aware that we are dealing here with a small number of observations (HSA's) such that a single pair of values can make a lot of difference to the value of r (Pearson's coefficient) or r_s (Spearman's coefficient). Hence, results are only suggestive, not conclusive, and in any event, they should not be taken to imply cause-and-effect relationships. Rather, the correlation coefficients merely indicate the degree and direction in which two variables change together as described in the next section.

RESULTS

Table 2 shows statistically significant coefficients for correlations between mortality rates and each of the nutrition factors, income and elevation respectively, and Table 3 displays significant coefficients for correlations between nutrition factors and income and elevation respectively. In these tables, the sign of the coefficient (r or r_s) indicates